FOREIGN SMALL CARS ARE NOT CYCLECARS

And It's Poor Practice to Copy Them as Such, Says A. L. McMurtry.

COST IS HIGHER ABROAD

But Americans Are Overlooking That Element, Too, Says Engineer.

By ALDEN L. McMURTRY, Consulting Engineer.

The cheapest motor vehicle is the motorcycle. Next to it is the cheap automobile. Most are aware of the characteristics of the cheap automobile, yet very few really know the modern high-powered motorcycle. Of all the motor propelled vehicles the modern motorcycle is the least understood and the most universally condemned. Almost all the arguments against the modern motorcycles are false because they are based upon assumptions rather than facts. It is true that the earlier types of motorcycles were not all that could be desired. The same may be said of the automobile.

The most fancied fault of the motorcycle is that it is uncomfortable. On the contrary I was surprised at the easy riding qualities of the motorcycle. It is true you feel the bumps of the road, but not any more, and in most cases less, than sitting in the rear seat of some small automobiles. The side or tilting motion of the automobile is entirely eliminated. It is possible with the motorcycle to pick out the smoothest part of the road and therefore attain a higher rate of speed with more comfort than in the average small automobile.

The cylinder volume tax in some foreign countries was so heavy that the manufacturers designed cars fitted with small high speed motors. These small cars were in most cases exact duplicates of the regular product, except on a much smaller scale. These cars proved that a small high speed motor with a four speed transmission was the equal of the large slow speed American motor with a two or three speed transmission. It is a mistaken idea that these cars were designed solely to compete with the inexpensive American car, as some appeared on the highways abroad long before the so-called invasion of the American car.

After consideration of the motorcycle with the side car attachment and the miniature automobile the following questions arise: Cannot a motorcycle be made with four wheels and arranged with a comfortable two pasenger body? Considering the design of the miniature car, is it necessary when building a smaller car to follow precisely accepted automobile engineering practice?

The questions would imply that the fundamental consideration was cost, since the scope of the motorcycle is to be enlarged while that of the miniature car is restricted—assuming that a two passenger car containing all the essentials of a motorcycle, thereby avoiding apparently the expensive construction of the automobile, or a miniature car built on a lesser degree of refinement would answer the requirements. Manufacturers of such a car have named it a cyclecar. We have two types of a cyclecar; namely, the modified motorcycle and the small automobile.

If it is possible to build a cyclecar which embodies almost all the essential parts of the motorcycle why are not the motorcycle builders making them? Why are so few interested? The price of a modern motorcycle averages between $250 and $325, and when equipped with a side car between $335 and $400. If we take the price of a motorcycle as a basis of comparison, then a motorcyvle type or cyclecar should reasonably cost over $500. That is, provided, however, the proposed cyclecar is built with the same sterling quality of workmanship and material which may be found in the modern motorcycle.

The characteristics of such a car in respect to speed, power and method of control would eliminate it from the cheap automobile class. In other words the advantage of rapid acceleration, taking all hills on high gear and possible overloading, would be discarded in return for the presumably economical cost of upkeep with respect to fuel and tires. Substantiation of the foregoing is found in the fact that the so-called cheap price of the foreign cyclecar averages over $600 and that the detail, design and workmanship of the car is not to be compared with that of the foreign motorcycle.

We have in this country a car the design of which afforded amazing manufacturing possibilities which have materialized. The success of this type of car is responsible in a great many respects for the cyclecar agitation. Almost 80 per cent. of the proposed American cyclecars are designed to compete more or less with this class of automobile, and as such could hardly be called cyclecars.

All the proposed American cyclecars are nothing more or less than small automobiles and as such are in a class by themselves in regard to utility, operation and cost of maintenance. The price of the actual American cyclecar is very close to that of the cheap automobile, while the prices of the cyclecars that remain in blueprint form are too low to guarantee either first class construction or their actual existence.

As the cyclecar is at present of considerable interest it is natural to hear of a great demand for them. Has this demand been analyzed? Is it a question of what is wanted or what can be supplied? Does the question of cost supersede mechanical construction? Does the demand actually exist or is it a question of many inquiries and few sales? Why are the large automobile factories with their wonderful manufacturing facilities not attempting to supply it? Can it be possible that the makers of cheap automobiles are waiting to eliminate their list of full equipment, design a skeleton body and meet the demand for a cyclecar with a cheaper automobile?

It is not my intention to appear pessimistic on the subject. However, the cyclecar has afforded questionable promoters a new excuse to organize manufacturing companies to build cyclecars at ridiculously low figures. Automobile engineers should discuss the cyclecar frankly and fearlessly in order that the public will know its limitations. Enthusiasm over the cyclecar should be limited to that which is supported only by fact.

DISCUSS GEAR SHIFTERS.

Electric Types Talked Over by Detroit Auto Engineers.

The Detroit setion, Soiety of Automobile Engineers, at its meeting last Thursday devoted the evening to "Electric Gear Shifting" and to the application of electrical devices now on the market to the automobile.

Those on the speakers' list were C. R. Underhill, hief electrical engineer of the Acme Wire Company, New Haven, Conn.; R. J. Nightingale of the Willard Storage Battery Company, Cleveland; W. A. McCarrell, chief engineer of the Vulcan Motor Devices Company, manufacturers of the Vulcan electric gear shift, Philadelphia, who discussed the use of electromagnets, referring particularly to the general principle of magnetic windings, their power and durability, the storage battery and its efficiency in relation to the electric gear shifting device. W. A. McCarrell explained the principle of the Vulcan mechanism, its construction and efficiency.

Frank N. Nutt, chief engineer of the Haynes Automobile Company, spoke of the efficiency of the Vulcan device in the operation of the Haynes car. The Haynes Automobile Company was among the first in the field to abandon the hand shift method of shifting gears. They assert that the electrical apparatus which replaces the hand lever on their cars is 10 per cent. efficient.